I. AMENDMENTS AND LISTING OF CLAIMS

The following listing of the claims replaces all prior versions, listing and amendments to the claims.

1. (Canceled)

2. (Currently Amended) A method for preparing substantially homogenous and biologically functional IKK protein complex comprising transforming a yeast with an IKK subunit gamma γ gene and an IKK subunit alpha (α) gene and/or an IKK subunit beta (β) gene and growing said yeast and separating said IKK protein complex from said yeast thereby preparing substantially homogenous and biologically function IKK protein complex ~~The method of claim 1 further comprising the steps of:~~

~~a. lysing said yeast;~~

~~b. extracting said protein produced by said IKK subunit gene; and~~

c. ~~purifying said IKK~~ subunit ~~protein~~.

3. (Canceled)

4. (Canceled)

5. (Currently Amended) The method of claim ~~1~~ 2, wherein one or more of said IKK ~~subunits~~ subunit γ gene, or IKK subunit α gene or IKK subunit β gene further ~~comprise~~ comprises ~~a polynucleotide encoding~~ a tag.

6. (Currently Amended) The method of claim 5 ~~1~~, wherein said tag is selected from the group consisting of myc, HA, FLAG ~~or~~ and 6his.

7. (Currently Amended) The method of claim ~~1~~ 2, wherein said IKK subunit gene is linked to ~~said promoter is~~ an inducible promoter or a constitutive promoter.

Claims 8 through 16 (Canceled).

17. (Currently Amended) The method of claim 2 ~~1~~, wherein said yeast is *Saccharomyces cerevisiae*.

18. (Currently Amended) The method of claim 1, wherein said IKK subunit gene is a mammalian IKK gene.

19. (Currently Amended) The method of claim 18, wherein said mammalian IKK subunit gene is a human IKK subunit gene.

20. (Canceled)

21. (Currently Amended) The method of claim 2 ~~1~~, wherein said yeast is grown in selective liquid media ~~is an non-inducing drop-out media~~.

22. (Currently Amended) The method of claim 2 ~~1~~, wherein said IKK subunit gene encodes a wild-type IKK subunit protein.

23. (Currently Amended) The method of claim 2 ~~1~~, wherein said IKK subunit gene encodes a mutated IKK subunit protein ~~is mutated~~.

24. (Currently Amended) ~~A heterologously~~ The substantially homogenous protein produced by the method of claim 2 ~~expressed IKK complex, wherein said IKK is expressed by yeast~~.

25. (Withdrawn) The composition of claim 24, wherein said IKK complex is comprised of IKKα, IKKβ, and IKKγ subunits.

26. (Withdrawn) The composition of claim 24, wherein said IKK complex is produced by the method of claim 1.

27. (Withdrawn) A heterologously expressed IKK complex, wherein said IKKγ protein subunit regulates phosphorylation of serine residues in the activation of T loop kinase domain of IKK catalytic subunits.

28. (Withdrawn) The method of claim 27, wherein said IKK complex is activated by the dephosphorylation of γBD serines.

29. (Withdrawn) A yeast cell containing an expressible copy of a gene encoding a subunit of IKK.

30. (Withdrawn and Previously Presented) The yeast cell of claim 29 which is transformed with a yeast expression vector which contains the expressible copy of the gene encoding IKKα, IKKβ, or IKKγ.

31. (Withdrawn and Previously Presented) The yeast cell of claim 29 which is transformed by the method of claim 1.

32. (Withdrawn) A method for identifying upstream regulators of IKK complex, comprising the steps of:

a. mutating the genes of one or more said IKK subunits;

b. subcloning genes for IKK subunits into yeast expression vectors;

c. transforming said yeast expression vectors into yeast;

d. growing said yeast in a selective liquid media;

e. controllably inducing the expression of said IKK subunits by means of inducible promoters;

f. lysing said yeast;

g. extracting said IKK protein;

h. purifying said IKK protein; and

i. comparing kinase activity of said IKK protein with wild type IKK.

33. (Withdrawn) The method of claim 32, wherein said mutation is on a binding domain.

34. (Withdrawn and Previously Amended) The method of claim 33, wherein said mutation mimics the biochemical characteristics of said binding site when bound.

35. (Withdrawn and Previously Presented) The method of claim 33, wherein said mutation prevents binding at said domain site.

36. (Withdrawn) The method of claim 32, wherein said mutation changes serines to alanines.

37. (Withdrawn) The method of claim 32, wherein said mutation changes serines to glutamic acid.

38. (Withdrawn) A method for assaying IKK activity in situ in yeast comprising the steps of:

a. subcloning genes for IKK subunits into first yeast expression vectors;

b. transforming said first yeast expression vectors into yeast;

c. subcloning HeLa cell cDNA into second yeast expression vectors;

d. transforming said yeast expression vectors into said yeast;

e. replica plating said yeast;

f. growing said yeast on membranes on selective non-inducing medium

g. inducing said yeast to produce IKK protein;

h. fixing said IKK protein;

39. (Withdrawn and Previously Presented) The method of claim 38, further comprising the step of sequencing said positive clones.

40. (Withdrawn and Previously Presented) The method of claim 38, further comprising the steps of:

a. transforming said positive clone into yeast;

b. growing said yeast in a selective liquid media;

c. controllably inducing the expression of said clones by means of inducible promoters.

41. (Withdrawn and Previously Presented) The method of claim 40, further comprising the steps of:

a. transforming said positive clone into yeast;

b. growing said yeast in a selective liquid media;

c. controllably inducing the expression of said clones by means of inducible promoters.